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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,420	04/19/2006	Shunpei Yamazaki	740756-2955	9417
22204	7590	07/11/2007		
NIXON PEABODY, LLP 401 9TH STREET, NW SUITE 900 WASHINGTON, DC 20004-2128			EXAMINER TRAN, TONY	
			ART UNIT 2818	PAPER NUMBER
			MAIL DATE 07/11/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/576,420

Applicant(s)

YAMAZAKI ET AL.

Examiner

Tony Tran

Art Unit

2818

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 7-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04/19/07 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 04/19/06.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### Election/Restrictions

1. Applicant's election without traverse of Group I (claims 1-6) in the reply filed on 06/14/07 is acknowledged.

### *Claim Rejections - 35 USC § 103*

#### **35 U.S.C. 103 Conditions for patentability; non-obvious subject matter.**

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 4 and 5-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Sasaki et al. (Patent No.: 5084905) (hereinafter Sasaki) in view by itself.

Regarding Claim 1, Sasaki, FIG. 1 discloses a liquid crystal display device (col. 1, lines 15-25) comprising: a thin film transistor including a gate electrode (2, col. 1, lines 47-50); a columnar conductive film (11, col. 1, lines 65-68) formed over a source electrode (6, col. 1, lines 53-55) of the thin film transistor; and a pixel electrode (10, col. 2, lines 10-15) connected to the columnar conductive film (11).

However, Sasaki does not disclose a conductive film formed over a drain electrode.

Nevertheless, Sasaki, FIG. 2 does teach a conductive film (27a, col. 3, lines 15-17) formed over a drain electrode (D, col. 3, lines 14-17).

Therefore, since both Sasaki, FIG. 1 and 2 teach on the thin film transistor device. It would have been obvious to one ordinary skill in the art at the time the invention was made to include a conductive film form over a drain electrode in Sasaki, Fig.1, as taught by Sasaki, FIG. 2. One would have been motivate to make such a change to improve the electrical characteristic and performance of the light emitting device.

In regards to claim 1, the process limitation of how the device layer is formed has no patentable weight in claim drawn to structure. Note that a product by process claim is directed to the product per se, no matter how actually made, In re Hirao, 190 USPQ 15 at 17 (footnote 3). See also In re Brown, 173 USPQ 685; In re Luck, 177 USPQ 523; In re Fessmann, 180 USPQ 324; In re Avery, 186 USPQ 161; In re Wertheim, 191 USPQ 90 (209 USPQ 554 does not deal with this issue); and In re Marosi et al, 218 USPQ 289, all of which make it clear that it is the patentability of the final product per se which must be determined in a product by process claim, and not the patentability of the process, and that an old or obvious product by a new method is not patentable as a product, whether claimed in product by process claims or not. Note that applicant has the burden of proof in such cases, as the above case law makes clear.

Therefore, the phrase "formed by a droplet discharge method" is thus non-limiting.

Regarding Claim 2, Sasaki further discloses wherein the gate electrode (2, FIG. 1, col. 1, lines 47-50) is formed over an area in substrate [1] (the area underneath gate insulating film 22, col. 2, lines 62-64).

In regards to **claim 2**, the process limitation of how the gate electrode and columnar conductive film are formed has no patentable weight in claim drawn to structure. Note that a product by process claim is directed to the product per se, no matter how actually made, In re Hirao, 190 USPQ 15 at 17 (footnote 3). See also In re Brown, 173 USPQ 685; In re Luck, 177 USPQ 523; In re Fessmann, 180 USPQ 324; In re Avery, 186 USPQ 161; In re Wertheim, 191 USPQ 90 (209 USPQ 554 does not deal with this issue); and In re Marosi et al, 218 USPQ 289, all of which make it clear that it is the patentability of the final product per se which must be determined in a product by process claim, and not the patentability of the process, and that an old or obvious product by a new method is not patentable as a product, whether claimed in product by process claims or not. Note that applicant has the burden of proof in such cases, as the above case law makes clear.

Therefore, the phrase "pretreated" is thus non-limiting.

Regarding **Claim 4**, Sasaki discloses the claimed invention except for wherein at least one of the gate electrode, the drain electrode, and the columnar conductive film contains one selected from the group consisting of gold, silver, copper, platinum, palladium, tungsten, nickel, tantalum, bismuth, lead, indium, tin, zinc, titanium, and aluminum. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to include wherein at least one of the gate electrode, the drain electrode, and the columnar conductive film contains one selected from the group such as copper, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Regarding Claims 5-6, Sasaki further discloses wherein the thin film transistor includes an amorphous semiconductor or a semi amorphous semiconductor (4, FIG. 1, col. 1, lines 50-55).

A television receiver (col. 1, lines 7-10), wherein the liquid crystal display device according to Claim 1 (col. 1, lines 14-16) is included in a display screen of the television receiver.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki et al. (Patent No.: 5084905) (hereinafter Sasaki) in view of Kobayashi et al. (Pub. No.: 2002/0006558 A1) (hereinafter Kobayashi).

Regarding Claim 3, Sasaki does disclose all the limitation of claims 1 and 2.

However, Sasaki does not disclose wherein the area which is pretreated is formed using photo catalyst.

Nevertheless, Kobayashi does teach wherein the gate electrode is formed over an area, wherein the area which is formed using photo catalyst (233a, FIG. 16, [0274])

Therefore, since both of Sasaki and Kobayashi teach on the light emitting device. It would have been obvious to one ordinary skill in the art at the time the invention was made to include wherein the area which is pretreated is formed using photo catalyst in Sasaki, as taught by Kobayashi. One would have been motivate to make such a change to improve the electrical characteristic and performance of the light emitting device.

*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tony Tran whose telephone number is 571 270-1749. The examiner can normally be reached on Monday through Friday: 7:30AM-5:00PM (E.S.T.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Lok can be reached on (571) 272-1657. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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